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REMARKS

Initially, Applicant appreciates the indication of allowable subject matter in claims 36-36.

Claims 26 and 33-35 were rejected under 35 USC 102(b) as being anticipated by Gnadinger. Applicant respectfully traverses this rejection. In order for a reference to anticipate a claim, that reference must teach each and every element of that claim. As Gnadinger does not teach each element of the claims as amended, the rejection is unsupportable and must be withdrawn. For example, Gnadinger does not teach "forming a bump on and extending outward from an upper surface . . . and forming a contact pad on and extending outward from a lower surface of the wafer." As such, the claims are not anticipated.

Gnadinger discloses a method of stacking silicon wafers in a manner that permits relative movement between them. This is described as a "necessary" attribute at col. 3, lines 58-64. A protruding metal bump 20 is provided along with a recessed contact pad 22 so that the bump may move freely within the recess to account for expansion and contraction. As such, Gnadinger does not teach a contact pad that extends outward from the surface. Furthermore, Gnadinger would not be so modified, as this would preclude the necessary function of relative movement and the lack of a "rigid" mechanical bond. Col. 3, lines 58-60. The presently claimed invention permits rigid connections between electrical elements, while offsetting the stacked components in a controlled manner.

Claim 27-32 were rejected under 35 USC 103(a) over Gnadinger combined with various references. These references do not account for the deficiencies noted above and Gnadinger would teach away from a modification of the recessed pads. As such, these rejections are likewise unsupportable and Applicant respectfully requests their withdrawal.

Claims 47-50 were rejected under 35 USC 103(a) as being unpatentable over Hubbard in view of Akram. Hubbard is cited to show stacked components in a medical device and uses solder balls, which have previously been addressed

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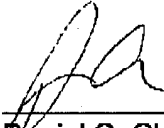
by Applicant. Akram illustrates flush contact pads. Thus, even if combined, the result is not the presently claimed invention.

As the claims are in condition for allowance, notice of the same is respectfully requested. Should any issues remain outstanding, the Examiner is respectfully urged to telephone the undersigned.

As the application is in condition for allowance, Applicant respectfully requests notice of the same. Should any issues remain outstanding, the Examiner is requested to telephone the undersigned attorney to attend to these matters.

Respectfully submitted,

Date: 4/14/04



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